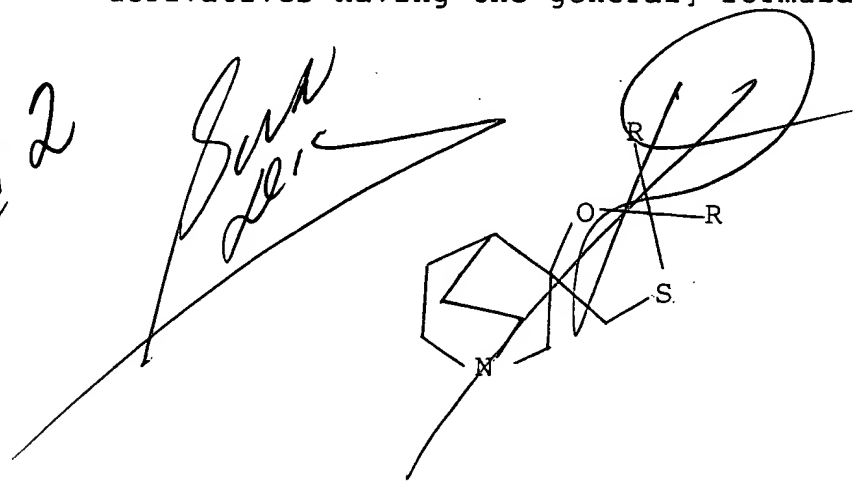
Page 18, lines 10-11, delete ", wherein Z represents the group CRR,".

Page 20, lines 4-5, delete "wherein Z represents the group $>CR^1R^2$,"; and

lines 11-12, delete "wherein Z represents the group $>CR^1R^2$,".

IN THE CLAIMS:

1. (Amended) A compound of the [Quinuclidine derivatives having the general] formula (I)



and geometrical isomers, enantiomers, diastereoisomers, racemates and/or acid addition salts thereof, wherein [Z represents the

group $>CR^1R^2$ or two hydrogen atoms;] R^1 is selected from the group consisting of hydrogen, lower alkyl, cyclopentyl, cyclohexyl, [aryl, diarylmethylol,] phenyl, diphenylmethylol and lower alkyl which is substituted by one or [more aryl] two phenyl groups and R is selected from the group consisting of lower alkyl, cyclopentyl, cyclohexyl, [aryl, diarylmethylol,] phenyl, diphenylmethylol and lower alkyl which is substituted by one or [more aryl] two phenyl groups.

2. (Amended) A compound [Quinuclidine derivatives] according to claim 1, wherein [Z represents the group $>CR^1R^2$,] R^1 is hydrogen, and R^2 is selected from the group consisting of lower alkyl, cyclopentyl, cyclohexyl, [aryl, diarylmethylol,] phenyl, diphenylmethylol and lower alkyl which is substituted by one or [more aryl] two phenyl groups.

3. (Amended) A compound [Quinuclidine derivatives] according to claim 1, wherein [Z represents the group $>CR^1R^2$,] R^1 is selected from the group consisting of lower alkyl, cyclopentyl and cyclohexyl, and R^2 is selected from the group consisting of lower alkyl, cyclopentyl, cyclohexyl, [aryl, diarylmethylol,] phenyl, diphenylmethylol and lower alkyl which is substituted by one or [more aryl] two phenyl groups.

4. (Amended) A compound [Quinuclidine derivatives] according to claim 1, wherein [Z represents the group $>CR^1R^2$,] R^1 is phenyl [aryl], and R^2 is selected from the group consisting of [aryl, diarylmethylol,] phenyl, diphenylmethylol and lower alkyl which is substituted by one or [more aryl] two phenyl groups.

5. (Amended) A compound according to [quinuclidine derivative as defined in] claim 2, wherein R^1 is hydrogen and R^2 is methyl.

6. (Amended) A compound according to [quinuclidine derivative as defined in] claim 2, wherein R^1 is hydrogen and R^2 is phenyl.

7. (Amended) A compound according to [quinuclidine derivative as defined in] claim 2, wherein R^1 is hydrogen and R^2 is diphenylmethyl.

8. (Amended) A compound according to [quinuclidine derivative as defined in] claim 2, wherein [of] R^1 is hydrogen and R^2 is selected from the group consisting of ethyl, propyl[, 1-pyrenepropyl] and diphenylmethylol.

9. (Amended) A compound according to [quinuclidine derivative as defined in] claim 3, wherein R^1 is methyl and R^2 is phenyl.

10. A compound according to [quinuclidine derivative as defined in] claim 3, wherein R^2 is phenyl and R^1 is selected from the group consisting of ethyl and cyclohexyl.

11. A compound according to [quinuclidine derivative as defined in] claim 4, wherein R^1 and R^2 are each phenyl.

Please cancel claim 12 without prejudice.

Claim 13, line 1, delete "defined in" and insert --according to--.

Claim 14, line 1, delete "defined in" and insert --according to--.

Claim 15, line 1, delete "defined in" and insert --according to--.

Claim 16, line 2, delete "defined in" and insert --according to--.

Claim 17, line 2, delete "defined in" and insert --according to--.

18. (Amended) A process for preparing [quinuclidine derivatives] a compound according to claim 1, [and wherein Z represents the group $>CR^1R^2$, which comprises] comprising reacting 3-hydroxy-3-mercaptomethylquinuclidine with a carbonyl compound of formula R^1-CO-R^2[,] and isolating the desired product from the reaction mixture.

Claim 19, line 1, delete "which" and insert --wherein the process--.

22. (Amended) A process for preparing a compound [quinuclidine derivatives] according to claim 1, [and wherein Z represents the group $>CR^1R^2$, which comprises] comprising reacting 3-hydroxy-3-mercaptomethylquinuclidine with a carbonyl compound of formula R^1-CO-R^2, in an atmosphere of nitrogen, at a temperature in the range of about 20 to about 30°C, in the presence of boron trifluoride etherate as catalyst and in a solvent medium which comprises one or more members selected from the group consisting of dichloromethane and chloroform, and isolating the desired product from the reaction mixture.

Claim 26, lines 1 and 2, delete "wherein following isolation" and insert --further comprising isolating--.

C5

32. (Amended) A process for preparing the compound [defined in] according to claim [12, wherein] 101 comprising reacting the epoxide of 3-methylenequinuclidine [is reacted] with hydrogen sulfide.

Claim 34, line 1, after "33", insert --,--.

Claim 35, line 1, delete "which" and insert --wherein the reaction--.

Claim 39, line 1, after "38", insert --,--.

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~~42.~~ (Amended) A pharmaceutical composition [which comprises a quinuclidine derivative] comprising a compound of formula (I) [as defined in] according to claim 1[, and wherein Z represents the group $>CR^1R^2$], or a pharmaceutically compatible acid addition salt thereof, together with an inert carrier or diluent.

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~~46.~~ (Amended) A pharmaceutical composition for transdermal administration, [which comprises a quinuclidine derivative] comprising a compound of formula (I) [as defined in]

according to claim 1, [wherein Z represents the group $>CR^1R^2$,] or a pharmaceutically compatible acid addition salt thereof, [as well as] and a low molecular weight fatty acid.

Claim 47, line 2, delete "quinuclidine derivative" and insert --compound--.

Claim 48, line 2, delete "quinuclidine derivative" and insert --compound--.

Claim 49, line 2, delete "quinuclidine derivative" and insert --compound--.

Claim 50, line 2, delete "which contains additionally" and insert --further comprising--.

~~51.~~ 26 (Amended) A pharmaceutical composition according to claim ~~42,~~ 17 wherein the [quinuclidine derivative] compound of formula (I) is that in which R^2 is selected from the group consisting of lower alkyl containing at least three [or more] carbon atoms, cyclopentyl, cyclohexyl, [aryl, diarylmethylol,] phenyl, diphenylmethylol and lower alkyl substituted by [aryl] one or two phenyl groups, and R^1 is selected from the group consisting of hydrogen, lower alkyl, cyclopentyl, cyclohexyl,

Amend C8

[aryl, diarylmethylol,] phenyl, diphenylmethylol and lower alkyl substituted by [aryl] one or two phenyl groups.

Claim 52, line 2, delete "quinuclidine derivative" and insert --compound--.

Claim 53, line 2, delete "quinuclidine derivative" and insert --compound--.

Claim 54, line 2, delete "quinuclidine derivative" and insert --compound--; and

line 4, delete ", 1-pyrenepropyl".

C9

~~57.~~ 30 (Amended) A method for treating diseases of the central nervous system in mammals, [which comprises] comprising administering to the mammal a [quinuclidine derivative,] compound of formula (I) according to claim 1 or a pharmaceutically compatible acid addition salt thereof[, as defined in claim 1 wherein Z represents the group $>CR^1R^2$].

Claim 58, line 2, change "which comprises" to --comprising--; and

line 3, delete "as defined in" and insert --according to--.

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~~59.~~ (Amended) A method for treating diseases of the central nervous system in mammals, [which comprises] comprising transdermal administration to the mammal of a [quinuclidine derivative,] compound of formula (I) according to claim 1 or a pharmaceutically compatible acid addition salt thereof[, as defined in claim 1 wherein Z represents the group $>CR^1R^2$.

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~~60.~~ (Amended) A method for treating diseases due to a deficiency in the central cholinergic system in mammals, [which comprises] comprising administering to the mammal a [quinuclidine derivative as defined in] compound according to claim 2, wherein R^1 is hydrogen and R^2 is methyl, [and including] or geometrical isomers, enantiomers, racemates [and/or] or acid addition salts thereof.

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~~61.~~ (Amended) A method for treating diseases due to a deficiency in the central cholinergic system in mammals, [which comprises] comprising administering to the mammal a pharmaceutical composition containing a [quinuclidine derivative as defined in] compound according to claim 2, wherein R^1 is hydrogen and R^2 is methyl, [and including] or geometrical isomers, enantiomers, racemates [and/or] or acid addition salts thereof, together with an inert carrier or diluent.

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~~62.~~ (Amended) A method for treating diseases due to a deficiency in the central cholinergic system in mammals, [which comprises] comprising transdermal administration to the mammal of a compound [quinuclidine derivative as defined in] according to claim 2, wherein R^1 is hydrogen and R^2 is methyl, [and including] or geometrical isomers, enantiomers, racemates [and/or] or acid addition salts thereof.

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~~63.~~ (Amended) A method for treating diseases due to cholinergic hyperfunction in mammals, comprising [which comprises] administering to the mammal a [quinuclidine derivative,] compound of formula (I) according to claim 1 or a pharmaceutically compatible acid addition salt thereof, [as defined in claim 1] wherein [the quinuclidine derivative of formula (I) is that in which Z represents the group $>CR^1R^2$,] R^2 is selected from the group consisting of lower alkyl containing at least three [or more] carbon atoms, cyclopentyl, cyclohexyl, [aryl, diarylmethylol,] phenyl, diphenylmethylol and lower alkyl substituted by [aryl] one or two phenyl groups, and R^1 is selected from the group consisting of hydrogen, lower alkyl, cyclopentyl, cyclohexyl, [aryl, diarylmethylol,] phenyl, diphenylmethylol and alkyl substituted by [aryl] one or two phenyl groups.

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~~64.~~ (Amended) A method for treating diseases due to cholinergic hyperfunction in mammals, comprising [which comprises] administering to the mammal a pharmaceutical composition containing a [quinuclidine derivative,] compound of formula (I) according to claim 1 or a pharmaceutically compatible acid addition salt thereof, [as defined in claim 1] wherein [Z represents the group $>CR^1R^2$,] R^2 is selected from the group consisting of lower alkyl containing at least three [or more] carbon atoms, cyclopentyl, cyclohexyl, [aryl, diarylmethylol,] phenyl, diphenylmethylol and lower alkyl substituted by [aryl] one or two phenyl groups, and R^1 is selected from the group consisting of hydrogen, lower alkyl, cyclopentyl, cyclohexyl, [aryl, diarylmethylol,] phenyl, diphenylmethylol and alkyl substituted by [aryl] one or two phenyl groups, together with an inert carrier or diluent.

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~~65.~~ (Amended) A method for treating diseases due to cholinergic hyperfunction in mammals, [which comprises] comprising transdermal administration to the mammal of a [quinuclidine derivative,] compound of formula (I) or a pharmaceutically compatible acid addition salt thereof, [as defined in claim 1] wherein [Z represents the group $>CR^1R^2$,] R^2 is selected from the group consisting of lower alkyl containing at least three [or more] carbon atoms, cyclopentyl, cyclohexyl, [aryl, diarylmethylol,] phenyl, diphenylmethylol and lower alkyl

substituted by [aryl] one or two phenyl groups, and R^1 is selected from the group consisting of hydrogen, lower alkyl, cyclopentyl, cyclohexyl, [aryl, diarylmethylol,] phenyl, diphenylmethylol and lower alkyl substituted by [aryl] one or two phenyl groups.

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~~66.~~ (Amended) A method of treating diseases due to cholinergic hyperfunction in mammals, [which comprises] comprising administering to the mammal a [quinuclidine derivative as defined in] compound according to claim 7, or a pharmaceutically compatible acid addition salt thereof.

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~~67.~~ (Amended) A method for treating diseases due to cholinergic hyperfunction in mammals, [which comprises] comprising administering to the mammal a pharmaceutical composition containing a [quinuclidine derivative as defined in] compound according to claim 7, or a pharmaceutically compatible acid addition salt thereof, together with an inert carrier or diluent.

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~~68.~~ (Amended) A method for treating ~~or~~ diseases due to a deficiency in the central cholinergic [hyperfunction] system in mammals, [which comprises] comprising transdermal administration to the mammal of a [quinuclidine derivative as defined in]

compound according to claim 7, or a pharmaceutically compatible acid addition salt thereof.

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~~69.~~ (Amended) A method for treating diseases due to cholinergic hyperfunction in mammals, [which comprises] comprising administering to the mammal a [quinuclidine derivative as defined in] compound according to claim 9, or a pharmaceutically compatible acid addition salt thereof.

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~~70.~~ (Amended) A method for treating diseases due to cholinergic hyperfunction in mammals, [which comprises] comprising administering to the mammal a pharmaceutical composition containing a [quinuclidine derivative as defined in] compound according to claim 9, or a pharmaceutically compatible acid addition salt thereof, together with an inert carrier or diluent.

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~~71.~~ (Amended) A method for treating diseases due to cholinergic hyperfunction in mammals, [which comprises] comprising transdermal administration to the mammal of a [quinuclidine derivative as defined in] compound according to claim 9, or a pharmaceutically compatible acid addition salt thereof.

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~~72.~~ (Amended) A method for treating senile dementia of Alzheimer's type, [which comprises] comprising administering to a patient a [quinuclidine derivative as defined in] compound according to claim 13, or a pharmaceutically compatible acid addition salt thereof.

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~~73.~~ (Amended) A method for treating senile dementia of Alzheimer's type, [which comprises] comprising administering to a patient a pharmaceutical composition containing a [quinuclidine derivative as defined in] compound according to claim 12 ~~13,~~ or a pharmaceutically compatible acid addition salt thereof, together with an inert carrier or diluent.

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~~74.~~ (Amended) A method for treating senile dementia of Alzheimer's type, [which comprises] comprising transdermal administration to a patient of a [quinuclidine derivative as defined in] compound according to claim 12 ~~13,~~ or a pharmaceutically compatible acid addition salt thereof.

Claim 75, line 2, delete "quinuclidine derivative" and insert --compound--.

Claim 76, line 2, delete "quinuclidine derivative" and insert --compound--.

Claim 77, line 2, delete "quinuclidine derivative" and insert --compound--.

~~84.~~ 51 (Amended) A pharmaceutical composition [which is] in unit dosage form [and which comprises a quinuclidine derivative] comprising a compound of formula (I) [as defined in] according to claim 1, [wherein Z represents the group $>CR^1R^2$,] or a pharmaceutically compatible acid addition salt thereof, in an amount [in the range of] ranging from about 0.5 to about 500 mg., together with an inert carrier or diluent.

Claim 85, line 1, delete "and"; and
line 2, change "which comprises" to --comprising-- and delete "quinuclidine derivative," and insert --compound--.

Claim 86, line 1, delete "and"; and
line 2, change "which comprises" to --comprising-- and delete "quinuclidine derivative" and insert --compound--.

Claim 88, line 1, change "87" to --84--; and
line 2, delete "which contains additionally" and insert --further comprising--.

Claim 89, line 2, delete "which" and insert --wherein the composition--.

Claim 90, line 2, delete "which" and insert --wherein the composition--.

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~~91.~~ 89 (Amended) A method for treating senile dementia of Alzheimer's type, [which comprises] comprising orally administering to a patient [via the oral route,] a [quinuclidine derivative as defined in] compound according to claim ~~13,~~ 12 or a pharmaceutically compatible acid addition salt thereof, in an amount [in the range of] ranging from about 0.1 to about 60 mg./kg. body weight.

Claim 92, lines 1 and 2, change "lies in the range of" to --ranges from--.

Claim 93, lines 1 and 2, change "lies in the range of" to --ranges from--.

Claim 94, line ~~1~~, delete "also"; and
line 2, delete "quinuclidine" and insert --compound--.

~~95.~~ 61 (Amended) A method according to claim ~~91~~ 59, wherein administration is by means of a pharmaceutical composition in unit dosage form [which contains] comprising the said [quinuclidine derivative] compound in an amount [in the range of] about 0.5 to about 500 mg., together with an inert carrier or diluent.

~~96.~~ 62 (Amended) A method for treating senile dementia of Alzheimer's type, [which comprises] comprising parenterally administering to a patient [via the parenteral route, a quinuclidine derivative as defined in] a compound according to claim ~~13~~ 12, or a pharmaceutically compatible acid addition salt thereof, in an amount [in the range of] ranging from about 0.01 to about 40 mg./kg. body weight.

Claim 97, lines 1 and 2, delete "lies in the range of" and insert --ranges from--.

Claim 98, lines 1 and 2, delete "lies in the range of" and insert --ranges from--.

Claim 99, line 1, delete "also"; and

line 2, delete "quinuclidine" and insert --compound--.